

GATF Technology Forecast 2002: Sheetfed Press Trends

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This is one of two articles prepared for GATF's Technology Forecast 2002 Report, which will be released formally at GATF's Tech Alert Conference at the end of January 2002. This Forecast hints at being one of the best ever. Be sure to get one for your management team!

The lithographic 40 sheetfed press provided the original platform for the development and refinement of virtually all automation and computer integrated manufacturing refinements of the past decade. Smaller and larger format presses are now the clear beneficiary of this proven technology as clear trends suggest the integration of much higher productivity across the entire product line of presses.

Press manufacturers diversifying as never before seeking additional revenue streams to include (1) used presses, (2) rebuild of client's existing stable of presses, (3) contracted maintenance, (4) fully integrated digital product line to include DI and variable imaging presses and (5) MIS and related auxiliaries that enhance digital work flow, CIM, and productivity (to include purchase of parts over the Internet).

Creative deals on new presses like rarely seen before. For example, a major press manufacturer threw in a late model used half-size 6 unit as part of a new 8 unit perfecter package.

Just as GMAC and GE Capital are two of the most profitable divisions of General Motors and General Electric, press manufacturers offer extraordinary financing packages approaching 100+% of the value of the deal, e.g., a used press trade-in at 20% of the total value still remains on the printer's floor many months after the new press is in full production. Interest rates are quite full to say the least.

These heavily leveraged sales have been structured to allow modest monthly payments while new print sales hopefully grow. Unpaid interest is being rolled over into more debt on that equipment. Unfortunately press trade-ups are rolling debt from earlier presses into the latest new package. One typical case has a \$3 million commercial printer running all his work on two shifts of a fully automated, six unit, half size press. The market value for this late model press is less than a million dollars while the debt load exceeds \$2.5 million. Total corporate debt restructuring might keep this printer from going bankrupt.

If the economy remains stagnant for any extended time period, bankruptcies among printers will throw a lot of not-so-old equipment on the used market. This could further depress new press sales, but be a bonanza for printers with

any cash. Expect 1970 era presses to be upgraded to late 1980s era (before major make-ready enhancements) and 1980s era to be upgraded to 1990s (lower mileage plus many automation and ink train linkages for improved make-ready efficiencies).

Drying on long perfector presses is presenting an opportunity for innovation. A Texas printer has installed UV between each of its eleven printing units. Another innovator has installed a pair of electron beam (EB) dryers after the sixth and last units for fully dried six over six work. The lower investment EB technology was a featured presentation at the Tech Alert 2000 conference. EB should find its most attractive audience among higher end packaging printers. It's too early to suggest a trend yet, but for lonnggg perfectors drying needs are crying out and unanswered.

While higher speed presses are being touted, there is little doubt that in the general commercial printing applications the cost justification is overwhelmingly reduced make-ready times. But clearly, the definition of make-ready is quickly evolving to include every task between client OK of proof to the delivered finished product. Or stated another way, the print production clock begins ticking at the point the client says, "The proof is good" and stops when he gets a dozen perfect samples.

Traditional auxiliary suppliers continue to innovate, e.g., EPIC products announce their Subtractive Keyless Inking (SKI) technology. However, until these innovations make their way upstream as OEM selections, their penetration will be limited.

The early stages of computer integrated manufacturing (CIM) in the printing industry beginning with CTP, automated plate mounting, and automated cylinder adjustments have virtually eliminated the concern for job fit.

Additionally the accuracy of registration plus the transference of electronic specifications has made cutting a highly productive function. All of these are efficiency by-products of saving time, labor, materials in the pre-press and static press make-ready tasks.

Many printers are backing into CIM with processes and equipment that meet unique requirements. This reactive CIM compatibility may soon be proactive. Or stated more bluntly, it may not be long before a full strategic CIM initiative may be required to remain profitable.

The general commercial printing industry has a lingering segment of practitioners who have aging stables of presses that are completely written off. While these "old faithfuls" allow low printing prices covering labor, ink, and some contribution to profit and overhead, their quality is mediocre and total

turn around time is agonizingly slow. Digital presses are competing more effectively against this segment in the lower run lengths arena.

Engineering refinements continue to be made on newer presses to reduce spoilage and make operating easier. These include software to preset press parameters as well as airflow refinements for paper handling and to prevent ink from sticking to the impression cylinder. The basic inking systems still need further refinement.

Activity-based costing measurements rather than traditional materials and process costing are allowing more focused management among printers. For example, the true costs of rollers includes the time for resetting stripping as well as simply the manufacturers invoices for recovering. Bottcher America recommends checking the nap on the first Monday of each month and on the stripe gauge to set stripes. This discipline and Bottcher's compiled database is showing industry leaders spending less than \$800/unit/year on roller expense.

Note: Author Clint Bolte would like to acknowledge the input from GATF Senior Consultants Bruce Tietz and Ray Prince in preparing this article.

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